			Sheet 1 of 4
Form PTO-1449	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT	03-214-A	10/789,831
		Applicant: Bao, et al.	
		Filing Date: February 27, 2004	Group: TBA

**U.S. PATENT DOCUMENTS** 

	Examiner inittal		Document Number	Date	Name	Class	Subclass	Filing Date
alishia K		1.	4,193,983	3/18/80	Uliman et al.	436	528	
alisho by	<b>d</b> ←	2.	4,256,834	3/17/81	Zuk et al.	435	7.72	
ulis166 pc	4	3.	4,261,968	4/14/81	Ullman et al.	436	546	
nislor K	4	4.	4,313,734	2/2/82	Leuvering	436	525	
1115/46	X	5.	4,318,707	3/9/82	Litman et al.	430	537	
ilklor of	2	6.	4,650,770	3/17/87	Liu et al.	436	523	
Mar, Kilin	X	7.	4,713,348	12/15/87	Ullman	435	7.25	
116/26 P	7	8.	4,853,335	8/1/69	Olsen et al.	436	523	
ulisla 🚩	7	9.	4,868,104	9/19/89	Kura et al.	435	6	
115/x4 K	Y	10.	5,225,064	7/6/93	Henkens et al.	204	403,1	
115/04 2	Z	11.	5,294,369	3/15/94	Shigekawa et al.	516	97	
ulklore of	d	12.	5,384,073	1/24/95	Shigekawa et al.	516	77	
		-13.	<del>-5,384,265</del>	1/24/95	Kidwell et al.			
"12/24 ×	. L	14.	5,460,831	10/24/95	Kossovsky et al.	424	493	
1.6		15.	5,472,881	12/5/95	Beebe et al			
18/04	4	16.	5,514,602	05/07/96	Brooks, Jr. et al.	436	525	
alidou of	K	17.	5,521,289	5/28/96	Hainfeld et al.	530	391.5	
ulustov K	_ X	18.	5,543,158	8/6/96	Gref et al.	424	561	
"help4 or	<b>«</b>	19.	5,571,726	11/05/96	Brooks, Jr. et al.	436	525	
111404	✓	20.	5,665,582	9/9/97	Kaushch et al.	435	181	
115/08 or	K	21.	5,681,943	10/28/97	Letsinger et al.	536	534-225.33	

OTHER DOCUME	NTS - Including Author, Title, Date, Pertinent Pages, Etc.
Examiner	Date Considered
EYAMINER: Initial if citation considered, whether	or not citation is in conformance with MPEP 609. Draw line through citation if not in

conformance and not considered. Include copy of this form with any communication.

DTO 4	140		c <del></del>				Sheet 2 of 4
Form PTO-1	449	U.S. De Pater	partment of Commerce	Atty. Docket No.		Serial No.	
	•			03-214-A		10/789,831	1
		NFORMATION DISCLOS STATEMENT BY APPLIC					
	-			Applicant: Bao, et al.	<u>-</u> <u>-</u>		
				T. F. C.			<u></u> .
				Filing Date:		Group: TBA	
	-			February 27, 2004			
			U.S. PATEN	T DOCUMENTS		·····	
Since		P			T		
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
	1			<del></del>	<del>                                     </del>	<del>- </del>	
• • • • • • • • • • • • • • • • • • • •			<u> </u>				<del></del>
	<del>                                     </del>	<u> </u>	FOREIGN PAT	ENT DOCUMENTS	T		<del></del>
	ļ	Document Number	Date	Country	Class	SasioduZ	Translation Yes No
de	22.	WO 89/06801	7/27/89	PCT		1=	1
4	23.	WO 97/40181	10/30/97	PCT	1_		
	24	WO 98/04740	2/5/98	_PCT	<b>†</b> -		
	25.	WO 99/23258	10/30/98	PCT	<del> </del>		
	26.	0 630 974 A2	06/21/94	EPØ		<del> </del>	<del> </del>
1	27.	0 667 398 A2	8/16/95	EPØ		<del> </del>	
- 0-	<u> </u>	000.030.2	4 1000	Cry			
·		OTHER DOCL	IMENTS - Including A	uthor, Title, Date, Pertinent	Pages, Etc	c. ,	
X	28.			lecules' using DNA," Nature, Vo			
4	29.	Bain, et al., "Modeling Or (1989)	ganic Surfaces with Self-A	Assembled Monolayers," Angew.	Chem. Int. E	d. Engl., Vol. 28,	pp. 506-512
L	30.	Bradley, "The Chemistry of	of Fransition Metal Colloid	ds," Clusters and Colloids: From	Theory to A	oplications, G. Sch	umid, Editor, BCH,
- V	31.	Weinheim, New York, pp. Brust et al., "Novel Gold-I	<u>459-542 (1994)</u> Dith <b>iol Nano-Networks w</b> i	th Non-Metallic Electronic Prope	erties," Adv. I	Mater., Vol. 7, pp.	795-797 (1995)
<u> </u>	32.	Chen et al., "A Specific Qu		om DNA Branched Junctions," J.		• •	-
	33.	(1989) Chen & Seeman, "Synthes	is from DNA of a molecul	le with the connectivity of a cube,	" Nature Ve	1 150 m 631-63	2 (1001)
7	34.	P .		tercalated DNA: d(C <sub>4</sub> ) <sup>11</sup> Biochem			
<u>~</u>				unize gold nanoparticles," Chemi			
<u> </u>	35.	1996	Assembles DIAM to 6189	nize gold nanoparticies, Chemi	co a culin	eering News, p. o	·/, August 19,
Examiner						~	
cxaminer		I trull		Date Considered	15/06		

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449		<del>-</del>			Serial No. 10/789,831	Sheet 3 of 4
			Applicant: Bao, et al.			
			Filing Date: February 27, 2004		Group: TBA	,
		U.S. PATEN	T DOCUMENTS			
Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc. Dubois & Nuzzo, "Synthesis, Structure, and Properties of Model Organic Surfaces," Annu. Rev. Phys. Chem., Vol. 43, pp. 437-36. 464 (1992) Elghanian et al., "Selective Colorimetric Detection of Polynucleotides Based on the Distance-Dependent Optical Properties of 37. Gold Nanoparticles," Science, Vol. 277, pp. 1078-1081 (1997) Grabar et al., "Preparation and Characterization of Au Colloid Monolsyers," Anal. Chem. Vol. 67, pp. 735-743 (1995) 38. Hacia et al., "Detection of heterozygous mutations in BRCA1 using high density oligonucleotide arrays and two-colour fluorescence 39. analysis," Nature Genet., Vol. 14, pp. 441-447 (1996) Jacoby Nanoparticles charge color on binding to nucleotide target," Chemical & Engineering News, p. 10, August 25, 1997

"Simple, cheap method for DMA detection"

Letsinger et al., "Use of Hydrophobic Substituents in Controlling Self-Assembly of Oligonucleotides, J. Am. Chem. Soc., Vol. 115, pp. 40. 41. Letsinger et al., "Control of Excimer Errission and Photochemistry of Stilbene Units by Oligonucleotide Hybridization," J. Am. Chem. 42. Soc., Vol. 116, pp. 811-812 (1994) Marsh et al., "A new DNA nanostructure, the G-wire, imaged by scanning probe microscopy," Nucleic Acids Res., Vol. 23, pp. 696-43. Mirkin, "H-DNA and Related Structures," Annu. Review Biophys. Biomol. Struct., Vol. 23, pp. 541-576 (1994) 44. Mirkin et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials," Nature, Vol. 382, pp. 607-45. 609 (1996) Mirkin et al., "DNA-Induced Assembly of Gold Nanoparticles: A Method for Rationally Organizing Colloidal Particles into Ordered 46. Macroscopic Materials," Abstract 249, Abstracts of Papers Part 1, 212 ACS National Meeting 0-8412-3402-7, American Chemical Society, Orlando, FL, August 25-29, 1996 Mucic et al., "Synthesis and characterizations of DNA with ferrocenyl groups attached to their 5'-termini: electrochemical 47. characterization of a redox-active nucleotide monolayer," Chem. Commun., pp. 555-557 (1996) Mulvaney, "Surface Plasmon Spectroscopy of Nanosized Metal Particles," Langmuir, Vol. 12, pp. 788-800 (1996) 48. Rabke-Clemmer et al., "Analysis of Functionalized DNA Adsorption on Au(111) Using Electron Spectroscopy," Langmuir, Vol. 10, 49. pp. 1796-1800 (1994)

Examiner & tulk	Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

							Sheel 4 of 4
Form PTO-1	149		partment of Commerce It and Trademark Office			Serial No.	
	11			03-214-A	į	10/789,831	
		NFORMATION DISCLOS STATEMENT BY APPLIC					
			•	Applicant: Bao, et al.			
				Filing Date:		Group: TBA	
				February 27, 2004			
			U.S. PATEN	T DOCUMENTS ,			
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
			FOREIGN PAT	ENT DOCUMENTS			
		Document Number	Date	Country	Class	Subclass	Translation
					ĺ		Yes No
		<u> </u>			<del>                                     </del>	<del>                                     </del>	
		OTHER DOCL	IMENTS Including A	uthor, Title, Date, Pertinent	Page Et		<u>,                                     </u>
	50.	Roubi, "MOLECULAR N		e with rotating arms assembled f			al & Engineering
	51.	News, p. 13, (Jan. 1999) Seeman et al., "Synthetic	DNA knots and catenane	s," New J. Chem., Vol. 17, pp. 7.	39-755 (199	3)	
$-\overline{Z}$	52.			Ring Closure," Science, Vol. 260,	i <u> </u>	·	
/-	53.		<del>-</del>	catenanes from eukaryotic cells,		-	57-763 (1993)
<del>~</del>	54:	Smith and Feigon, "Quad	ruplex structure of Oxytric	ha telomenic DNA oligonucleotid	es,* Nature,	Vol. 356, pp. 164	-168 (1992)
	55.	Thein et al., "The use of s	ynthetic oligonucleotides	s specific hybridization probes in	the diagnos	s of genetic disor	ders," 2nd Ed., K.E.
<del>Z</del>	56.	Wang et al., "Assembly ar	and Characterization of Five	York, Tokyo. p. 21-33 (1993) Arm and Six-Arm DNA Brached	Junctions,"	Biochem., Vol. 3	0, pp. 5667-5674
4-	57.		amer Which Binds to and	Inhibits Thrombin Exhibits a New	v Structural 1	Motif for DNA,"	Biochem., Vol. 32,
<u> </u>	58.	pp. 1899-1904 (1993) Weisbecker et al., "Molco	ular Self-Assembly of Alin	phatic Thiols on Gold Colloids,"	Langmuir, \	ol. 12, pp. 3763-3	3772 (1996)
~/-	59.			/ol. 263, pp. 1095-1098 (1988)			
<u> </u>	60.	Zhang et al., "Information	al Liposomes: Complexes	Derived from Cholcsteryl-conjug	ated Oligon	icleotides and Lip	osomes,"
	-	Tetrahedron Lett., Vol. 37	7, pp. 6243-6246 (1996)			·	
					<del></del>		
Examiner		1		Date Considered			

EXAMINER: Initial of officer considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Sheet I of 3

FORM PTO-1449	U.S. Department of	Commerce	Atty. Docket No.	Serial No.
(Rev. 2-32)	Patent and Trade	mark Unice	03-214-A	10/789,831
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT			
(Use se	(Use several sheets if necessary)			
			Applicant:	
	•		Bao, et al.	
			Filing Date:	Group:
			February 27, 2004	TBA

**U.S. PATENT DOCUMENTS** 

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1	5,830,986	11/03/98	Merrill, et al.	528	332	10/28/96-
<u> </u>	2.	5,900,481	-05/04/99	Lough, et al.	536	55.3	11/06/96
-	3.	6,203,989	03/20/01	Goldberg, et al	-435	-6	03/25/99
	4.	6,251,303	06/26/01	Bawendi, et al.	252	301.4R	09/18/98
	5.	6,277,489	08/21/01	Abbott, et al.	428	403	12/04/98
•	6.	6,306,610	10/23/01	Bawandi, et al.	435	7.1	09/17/99
<b></b>	7.	6,361,944	03/26/02	Mirkin, et al.	435	6	06/25/99
	8.	6,365,418	04/02/02	Wagner, et al.	435	518	05/18/00
,	9.	6,417,340	07/09/02	Mirkin, et al	536	23.1	10/20/00

FOREIGN PATENT DOCUMENTS

•	i	Document Number	Date	Country	Class	Subclass	Trans Yes	lation No
<b></b>	10.	WO 93/25709	23 December 1993	PGT				<del></del>
_	-11.	WO 98/04740	5 February 1998	PGT				
	12.	WO 98/17317	30 April 1998	PÇT				
-	13.	W0 99/60169	25 November 1999	PCT				
-	14.	WO 00/33079	8 June 2002	PCT				- mor
	15.	W0 01/00876	4 January 2001	PGT		<b></b>		$\vdash$

EXAMINER (2/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1	DATE CONSIDERED
A KAL	11/15/06

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

MCOONEGLL BORNEN

PAGE 34/37 \* RCVD AT 5/24/2006 4:38:29 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-3/7 \* DNIS:2738300 \* CSID:312 913 0002 \* DURATION (mm-ss):10-48

FORM PTO (Rev. 2-32		•	Atty. D	ocket No	) <u>.</u>	Serial No. 10/789,831		eet 2 c		
		INFORMATION D STATEMENT BY								
		(Use several sheets	if necessary)							
	•			•	Applica	ent	<del></del>			
					Bao, et	al.				
					Filing (	Date:		Gro	up:	
		<u> </u>	•		Februar	y 27, 200	04 TBA			
<del></del>			U.S. PATENT DO	CHMENTS			<del>-1</del>	<u> </u>	<del></del>	
Examiner Initial		Document Number	Date	Name		Class Subo		Filin Date belass Approp		te if
							<u> </u>		<u> </u>	
<del></del>	<u> </u>		FOREIGN PATENT D	DOCUMENTS	· · ·	<u> </u>	T		<u> </u>	
		Document Number	Date	Country		Class	Subo	class	Translation Yes N	
	16.	WO 01/51665	19 July 2001	PCT						
<b></b>	17.	-W0 01/73123	4 October 2001	PCT				·-		
	18.	W0 01/86301	15 November 2001	РСТ						
	19.	W0 02/04681	17 January 2002	PCT						
	20.	WO 02/18643	7 March 2002	PCT						
	21.	WO 02/36169	10 May 2002	PCT						
-	22.	WO 02/46483	13 June 2002	PCT						
	23.	WO 02/46472	13 June 2002	PGT						
		OTHER DOCUME	INTS (Including Author, T	itle. Date. Pertin	ent Page	s. Etcl.			<u> </u>	<u></u>
	24,	Letsinger, R., et al., "Chemis 144, p. 359-362 (1999)		*			Sulfur	and Si	licon, Vol	<del></del>
	25.	Letsinger, R., et al., "Use of Conjugates," Bioconjugate C	a Steroid Cyclic Disutfide Adhem, p. 289-291 (2000)	nchor in Construct	ng Gold N	lanopartiele	Olige	enucle	otide	
			U.S. PATENT DOC	CUMENTS						

PAGE 35/37 \* RCVD AT 5/24/2006 4:38:29 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-3/7 \* DNIS:2738300 \* CSID:312 913 0002 \* DURATION (mm-ss):10-48

				<b>14</b>	<del>,                                     </del>				Sh	eet 3 of		
FORM PTO-1449 (Rev. 2-32)		9 U.S. Department of Commerce Patent and Trademark Office				Atty. Docket No.			Serial No.			
						03-214-A			10/789,831			
				·								
	Applicant:											
			Bao, et al.									
			Filing Date:			Group:						
					February 27, 2004			TBA				
							<del></del>	<u> </u>				
Examiner Initial		Document Number	Date	Name	•	Class	Subclass		Filing Date if Appropriate			
					<u> </u>							
	ļ											
FOREIGN PATENT DOCUMENTS												
<u>-</u>		Document Number	Date	Country		Class	Subclass		Translation Yes No			
						Viass	3800	1033	162	NO		
									-			
		OTHER DOCUMEN	TS (Including Author, T	itle, Date, Pertin	ent Page	s. Etc).						
<del>-</del>	25.	Li Z., et al., "Multiple thiol unchor capped DNA gold nanoparticle conjugates," Nucleic Acids Research, Volume 30, p. 1558—1562 (2002)										
·	<del>27.</del>	Nuzzo R., et al., "Spontaneously Organized Molecular Assemblies. 3. Preparation and Properties of Solution Adsorbed Monolayers of Organic Disulfides on Gold Surfaces," J. Am Chem. Soc., Volume 109, p. 2358-2368 (1987)										
	_28. _	Otsuka, H., et al., "Quantifative and Reversible Lectir-Induced Association of Gold Nonoparticles Modified with D-Lactosyl-D-mercapto-poly(ethyleneghcol)," J. Am Chem. Soc., Volume 123, p. 8226-8230 (2001)										
-	29.	Wuelfing, P., et al., "Nanometer Gold Clusters Protected by Surface Bound Monolayers of Thiolated Polylethylener glycol) Polymer Electrolyte," J. Am Chem. Soc., Volume 120, p. 12696 12697 (1998)										
								<u>.</u>				

				_
EXAMINER	1 1	7	DATE CONSIDERED	
	ta Mark			1115106

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

MEDICANE SERVICEN

MACHINE SER